

Silverstein, Jack W.

The smallest eigenvalue of a large dimensional Wishart matrix. (English) Zbl 0591.60025
Ann. Probab. 13, 1364-1368 (1985).

Let $s \rightarrow \infty$ and $n \rightarrow \infty$ such that $n/s \rightarrow y$, a number strictly between 0 and 1. It is shown that the smallest eigenvalue of the (random) Wishart matrix $W(I_n, s)$ converges a.e. to $(1 - y^{1/2})^2$ when s tends to infinity. The proof relies strongly on the fact that the entries of $W(I_n, s)$ are i.i.d. normal.

Reviewer: Ch.Hipp

MSC:

[60F15](#) Strong limit theorems
[62H99](#) Multivariate analysis
[15B52](#) Random matrices (algebraic aspects)

Cited in **55** Documents

Keywords:

eigenvalue; Wishart matrix

Full Text: [DOI](#)